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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,792	06/14/2006	Nestor Rodriguez-Amaya	R.306166	6760
2119 7590 11/07/2008 RONALD E. GREIGG GREIGG & GREIGG P.L.L.C. 1423 POWHATAN STREET, UNIT ONE ALEXANDRIA, VA 22314				
EXAMINER				
TIETZEN, MARINA ANNETTE				
ART UNIT		PAPER NUMBER		
3753				
MAIL DATE		DELIVERY MODE		
11/07/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/582,792

Applicant(s)

RODRIGUEZ-AMAYA ET AL.

Examiner

MARINA TIETJEN

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11, 12, 15 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11, 12, 15 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This office action is responsive to the amendment filed on 08/20/2008. As directed by the amendment: claims 11, 15, and 18-20 have been amended and claims 1-10, 13-14, and 16-17 have been cancelled. Thus, claims 11-12, 15, and 18-20 are presently pending in this application.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 19-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 19-20 are dependent on claim 11, wherein claim 11 claims a sealing edge on a valve member of an inward-opening valve or on the valve body of an outward-opening valve, and claims 19 and 20 claim a sealing edge on the valve body. While having a sealing edge on the valve body of an outward-opening valve is described in the specification, having a sealing edge on the valve body of an inward-opening valve member (which already has a sealing edge on the member from claim 11) is not described in the specification and lacks enablement. As best understood, for

the purpose of examination, it will be assumed the sealing edge as capable of being located on the valve member or the valve body of the inward-opening valve.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fath et al. (6546914) in view of Danckert et al. (6427932).

Regarding Claim 11, Fath et al. disclose a valve (Fig. 1) for controlling fluids that are at high pressure, having a valve seat region (Fig. 2) at which a high-pressure region and a low-pressure region can be made to communicate with one another or can be disconnected from one another, and having a valve body 5 (Fig. 2), at which a seat face

55 (Fig. 2) is embodied for a conical valve member 1 (Fig. 2), the seat face 55 extending in inclined fashion in the valve body 5, the improvement wherein the conical valve member 1 comprises a multiconical geometry in the valve seat region, including at least one first conical face 30 (Fig. 2) and one second conical face 35 (Fig. 2), and wherein the first conical face 30 has a seat angle difference α_1 (Fig. 2) from the seat face 55 of the valve body 5 wherein the valve member 1 is the valve member of an inward-opening valve, and a sealing edge 27 (Fig. 2) formed on the valve member 1. However, Fath et al. fails to disclose a pocketlike recess embodied in the seat face of the valve body of the inward-opening valve, the sealing edge being located closer to the high-pressure region than the pocketlike recess when the high-pressure region and the low-pressure region are disconnected from one another.

Danckert et al. teaches a pocketlike recess 18 embodied in the seat face 16 of the valve body 14 of an inward-opening valve for the purpose of providing a cavitation space in which the implosion of cavitation bubbles will occur away from the walls of the needle and housing and thereby prevent erosion in the walls (col. 2, lines 8-35).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fath et al.'s invention to include a pocketlike recess embodied in the seat face of the valve body of an inward-opening valve, as taught by Danckert et al., for the purpose of providing a cavitation space in which the implosion of cavitation bubbles will occur away from the walls of the needle and housing and thereby prevent erosion in the walls. The sealing edge is capable of being located closer to the

high-pressure region than the pocketlike recess to further prevent erosion in the sealing edge walls.

Regarding Claim 12, Fath et al. discloses the second conical face 35 of the multiconical geometry has a further seat angle difference (Fig. 2) that exceeds the seat angle difference of the first conical face 30.

Regarding Claim 15, Fath et al. discloses the valve member (Fig. 2) is the valve member of an inward-opening valve (Fig. 1), and wherein the seat angle difference α_1 (Fig. 2) between the first conical face 30 and the seat face 55 of the valve body 5 is less than 5° (col. 2, lines 63-66).

Regarding Claim 18, Fath et al. discloses the seat angle difference α_1 (Fig. 2) at the first conical face 30 is embodied as extending radially outward (Fig. 2).

7. Claims 19-20, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Fath et al. (6546914) in view of Zeuch et al. (2927737).

Regarding Claims 19 and 20, Fath et al. discloses the invention as essentially claimed, except for the sealing edge embodied as an edge of the seat face of the valve body, wherein the edge is located between the seat face and a chamfer that has a seat angle difference from the seat face.

Zeuch et al. teaches the sealing edge as an edge (Fig. 1) located between the seat face δ (Fig. 3) of the valve body 1 (Fig. 3) and a chamfer that has an angle difference α (Fig. 3) from the seat face as being an alternative equivalent of having the

sealing edge (Fig. 1) as an edge of a conical face of the valve member 2 (Fig. 1; col. 1, lines 18-19) for the purpose of .

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fath et al.'s invention such that the sealing edge was embodied as an edge of the seat face of the valve body, wherein the edge is located between the seat face and a chamfer that has a seat angle difference from the seat face, as taught by Zeuch et al., since locating the sealing edge on the valve body is an equivalent alternative to having the sealing edge on the valve member.

Response to Arguments

8. Applicant's arguments with respect to claims 11-12, 15, and 18-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARINA TIETJEN whose telephone number is (571) 270-5422. The examiner can normally be reached on Mon-Thurs, 9:00AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GREG HUSON can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Rivell/
Primary Examiner, Art Unit 3753

/M. T./
Examiner, Art Unit 3753